Reviewer's report

Title: A controlled study of community-based exercise training in patients with moderate COPD

Version: 1 Date: 22 April 2014

Reviewer: Michael Stickland

Reviewer's report:

Hi,
I had sent an email needing assistance for loging in, but not received a reply. As such, please see my review below. Thanks,
Mike Stickland

To Editor:
The purpose of this study was to investigate whether a novel, community-based exercise program was feasible and effective for patients with moderate COPD. The authors show good adherence, and some improvement in exercise tolerance. The authors present promising data that would be good justification for a larger RCT.
My main critique is the small sample size (n=19). While the paper presents promising data, the low sample size would put it into the ‘An article of limited interest’. I am on the fence regarding the overall suitability for acceptance on this paper. AS such, I would classify it as ‘Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions’

To Author:
The purpose of this study was to investigate whether a novel, community-based exercise program was feasible and effective for patients with moderate COPD. The authors show good adherence, and some improvement in exercise tolerance. The authors present promising data that would be good justification for a larger RCT.

Major Comments:
With only 19 subjects, the study is likely underpowered on some of its outcomes, and reduces the overall quality of the paper. That being said, they did show good adherence, which is notable.

There was no change in SGRQ with community exercise. This is important, as rehab typically shows a clinically significant improvement in SGRQ. This needs to be discussed, and many would suggest that this type of program is not therefore a suitable replacement for rehab as it does not improve quality of life.

The methods section is severely lacking, and needs more detail:
It would be helpful to detail exactly what certification the trainers had (e.g. ACSM Exercise Specialist), how many had each certification, as well as how many total trainers were involved. Likewise, were the individualized exercise program developed by the investigators, or by the trainers. And how was standardization of intensity/overload confirmed?

What kind of strength training was conducted? How many exercises? 1 set, or more?

Little information is given on the incremental exercise test. As an example, I can’t find within the methods if the test was conducted on a bike or treadmill, and no detail of protocol is given.

Tlim trials were done on the treadmill; however I believe the justification for the power calculation were based on bike tests. Further, Tlim trials on a treadmill in this population is likely difficult and probably at least partially limited by patient fear. More description is needed, especially considering this is one of your primary outcomes.

Why was 6minute walk not conducted?

The authors conclude that this exercise program is ‘effective’. I don’t know if I agree with this conclusion, as SGRQ was not increased, and Tlim was increased using a treadmill test (where a MCID has been determined for COPD). I would agree that it was effective at improving SELECT parameters, and suggest you clearly specify these parameters. Further, I don’t think you can suggest a paradigm shift because again quality of life was not affect, and you did not demonstrate a clinically significant improvement in exercise tolerance. The results are promising, but the conclusion is somewhat overstated.

Minor:
Some abbreviations within the abstract are not detailed.